

# INTERNATIONAL SEARCH REPORT

IB2004/052126

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G01C19/22 G01C19/56

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G01C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 886 259 A (HULSING II RAND H) 23 March 1999 (1999-03-23) column 1, line 13 - column 6, line 37; figure 2	1-16
X	US 6 392 220 B1 (NEUKERMANS ARMAND P ET AL) 21 May 2002 (2002-05-21) column 18, line 59 - column 19, line 22; claim 1; figure 9C	1-16
A	GB 1 538 805 A (LITTON INDUSTRIES INC) 24 January 1979 (1979-01-24) page 14, line 105 - page 16, line 130; figures 18-25	7
A	EP 1 235 074 A (SAGEM) 28 August 2002 (2002-08-28) column 2, line 55 - column 7, line 2; figures 1,6	1,9,11



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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- \*&\* document member of the same patent family

Date of the actual completion of the international search

10 January 2005

Date of mailing of the international search report

18/01/2005

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## INTERNATIONAL SEARCH REPORT

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5886259	A	23-03-1999	EP 0891533 A2 JP 2002502493 T WO 9737196 A2	20-01-1999 22-01-2002 09-10-1997
US 6392220	B1	21-05-2002	CA 2340192 A1 EP 1119792 A2 JP 2002524271 T WO 0013210 A2 CA 2344487 A1 CA 2379822 A1 EP 1210627 A1 EP 1121616 A2 JP 2002526803 T JP 2003517631 T WO 0107945 A1 US 6694072 B1 WO 0020899 A2	09-03-2000 01-08-2001 06-08-2002 09-03-2000 13-04-2000 01-02-2001 05-06-2002 08-08-2001 20-08-2002 27-05-2003 01-02-2001 17-02-2004 13-04-2000
GB 1538805	A	24-01-1979	US 4143451 A US 4114402 A AU 503332 B2 AU 2220577 A BE 853047 A1 CA 1087383 A1 CH 624454 A5 DE 2714086 A1 DK 148877 A ES 457108 A1 ES 461196 A1 FR 2347570 A1 GR 63117 A1 IL 51475 A IT 1086632 B JP 52121176 A NL 7703656 A NO 770788 A , B, NZ 183233 A SE 7703779 A CA 1070531 A1 NZ 191299 A US RE30290 E	13-03-1979 19-09-1978 30-08-1979 17-08-1978 18-07-1977 14-10-1980 31-07-1981 20-10-1977 06-10-1977 01-03-1978 01-06-1978 04-11-1977 11-09-1979 31-03-1980 28-05-1985 12-10-1977 07-10-1977 06-10-1977 14-11-1980 06-10-1977 29-01-1980 14-11-1980 03-06-1980
EP 1235074	A	28-08-2002	FR 2821434 A1 EP 1235074 A1 US 2002152812 A1	30-08-2002 28-08-2002 24-10-2002